

ABSTRACT OF THE DISCLOSURE

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A target for physical vapor deposition (PVD) and methods for depositing non-magnetic materials are described. Power is introduced into the chamber through the target to produce plasma. The planar magnetron system is chosen for its high deposition rates. Since the permanent magnets are behind the target in traditional system, the magnetic target interferes with the required magnetic fields on the target. To eliminate this problem, permanent magnets are arranged on the target surface. Strong magnetic fields on the target can now be maintained for high deposition rates. The permanent magnets may be covered by a relatively thin, suitable protective film or by a film of the same material as the target.

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